

Biosolids Handling City of Chattanooga, Tennessee

August, 2021



REQUEST FOR SEALED BIDS
CONTRACT SERVICES
FOR
BIOSOLIDS HANDLING FROM
MOCCASIN BEND WASTEWATER TREATMENT PLANT
(August, 2021)

1. GENERAL

The City is soliciting sealed bids from qualified firms to provide contract services for the handling, transportation, land application, beneficial use or landfill transportation of Class B biosolids generated at the Moccasin Bend Wastewater Treatment Plant (MBWWTP). Biosolids meet the 40 CFR Part 503 Table 3 pollutant, Class B pathogen reduction and the process vector attraction reduction requirements.

Moccasin Bend Wastewater Treatment Plant (MBWWTP) is a unit of the City of Chattanooga, Tennessee (City), and is responsible for providing sewer service to the City of Chattanooga and 13 surrounding cities and counties. The City owns and operates MBWWTP, located on the Tennessee River. The MBWWTP is located at 455 Moccasin Bend Road, Chattanooga, TN 37405.

The Bidder's employees and equipment are viewed as an extension of the City. As such, employees shall be professional in mannerism, appearance and shall wear attire with the company's logo and employee's name clearly visible. All equipment shall be kept as clean as possible at all times with the company's logo and phone number clearly visible.

1.1 PURPOSE OF REQUEST

The City desires to provide a cost-effective, environmentally sound solution for the beneficial use of Class B biosolids. It is the City's intent to contract out the site locating, site data collection, other site permitting needs, loading, handling, transportation, staging, land application, beneficial use and/or landfill transportation of the biosolids produced at MBWWTP. Bidder will also be responsible for entering data into the appropriate approved database.

Specifically, the City is requesting bids for:

The onsite staging, handling and loading of approximately 80,000(±25%) wet tons/year of biosolids at the MBWWTP, site permitting physical and data needs, transportation of Class B biosolids to approved permitted site(s), and the beneficial use of the biosolids in an environmentally acceptable manner such as land application and/or other beneficial use methods. This historically represents 99.9 percent of the total dewatered biosolids production at the MBWWTP.

In the event biosolids do not meet EPA 503 regulations due to process issues, contamination while in the staging area or some other unforeseen error, the bidder must transport these to a City-approved landfill for disposal. The amount of biosolids this

represents has historically been less than one (1) percent annually.

A. Current Practices

Centrifuge Biosolids are conveyed to the biosolids loading area via shaftless screw conveyors. The loading area has the capability to load two (2) trucks at the same time or to load the trucks on an alternating basis. This facility can load tractor/dump trailer units or tandem dump trucks. Based on current production rates with two (2) centrifuges running, the average time for loading a tractor/trailer is about 60 minutes (1.0 hour) per truck. Tandem dump trucks take about 45 minutes (0.75 hours) per truck. Equipment and personnel required to operate equipment are to be supplied by the successful Bidder.

Bidder's employees are also responsible for monitoring the progress of material being loaded into trucks. A log must be filled out in the Centrifuge Building #2 (CB2) Control Room which denotes the time a truck exchange takes place. The Bidder's employee must request City operators turn a switch in the CB2 Control Room to change the truck which the conveyor is currently loading.

The trucks that are loaded with biosolids at the centrifuge loading facility are offloaded in a staging/storage area currently located near the Filter Press Building for ultimate transport to land application sites. This staging/storage function occurs on an around-the-clock basis while dewatering is in progress.

Centrifuge biosolids must remain in the storage area for a minimum of 24 hours in order for the pH to be documented and vector attraction reduction confirmed. However, this practice may take up to 48 hours, dependent on laboratory demand.

Once biosolids have cleared the laboratory and appropriate paperwork is received, the bidder is to transport the material directly to the designated land application site during the hours that it is acceptable to apply biosolids. Loader, trucks/trailers, operational vehicles and/or other equipment necessary to complete this task shall be provided by the Bidder. Operator(s)/driver(s) to complete this task shall also be provided by Bidder.

All vehicles used for land application are required to weigh-out and weigh-in across the plant certified scales per trip. Failure to do this may result in nonpayment for any load(s) in which there is no scale data.

B. Biosolids Land Application

The Bidder is responsible for locating potential land application sites, securing permission from land owners, preparing site books, soil sampling and analysis and supplying the City with all information necessary to acquire state application permits. The Bidder is also responsible for installing and observing all required setbacks and applying the approved amounts of biosolids at each site. The City will submit the Notice of Intent (NOI) and other documentation to the Tennessee Department of Environment and

Conservation (TDEC) and/or the Alabama Department of Environmental Management (ADEM), as required by the Biosolids General Permit.

The Tennessee Department of Environment and Conservation - Division of Water Resources (TDEC-DWR) provides oversight and permitting of land application sites in Tennessee. The Alabama Department of Environmental Management (ADEM) provides oversight and permitting of biosolids application sites in Alabama.

1. Quantities of Biosolids

Dewatering operations produce approximately 80,000 (± 25 percent) wet tons of biosolids per year. The dewatering operates on a 24/7/365 day/year basis, which includes weekends and holidays. This is a change from the previous process which only typically operated on weekdays with very little holiday operation.

2. Data Management

The City currently uses a centralized data management system for data entry from scale tickets, laboratory biosolids analyses, contractor land application activity data, field inspection data, nutrient management and oversight, land application prescription rates, public comments and questions and other analytical processes. This information is used to generate the annual EPA report, Notice and Necessary Information reports, GIS mapping of land application sites, field inspection tracking, public comment/complaint tracking, annual biosolids fact sheets, and contractor billing. The bidder will be responsible for entering data into any database system with training provided by the City and/or subcontractor's staff.

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1.2 GENERAL INFORMATION

The Bidder shall provide the following general information:

- A. Identify the name, address, telephone, e-mail address (if available), and facsimile numbers of the Bidder and the principal contact person.
- B. Identify the type of firm or organization (corporation, partnership, joint venture, etc.) and describe the entity that will serve as the contracting party.
- C. Submit a project organization chart.
- D. Identify and describe the contractual relationships for the portions of the work that will be undertaken directly by the Bidder and what portions of the work will be subcontracted. At a minimum, identify the parties that will undertake the roles for management, permitting, laboratory testing services, operation and maintenance,

transfer, transportation, land application, beneficial use and/or landfill transportation of biosolids. This requirement includes biosolids land application and/or any other beneficial use projects.

- E. Describe the history of the relationships among the team members, including a description of past working relationships.
- F. Provide the history, ownership, organization and background of the Bidder. If the Bidder is a joint venture, the required information must be submitted for each member of the joint venture firm. Include the following:
 - 1. Names of partners, and company officers who own 10 percent or more of the shares;
 - 2. If the Bidder or joint venture is a subsidiary of a parent company, state when the subsidiary was formed and its place in the corporate structure of the parent company. If a subsidiary is newly created for the purposes of responding to this Bid, the reasons for this action must be fully disclosed; and
 - 3. Identify any lawsuits or litigation, permit violations, and contract disputes for other projects developed and/or operated by the Bidder or other projects owned and operated by the Bidder's personnel.

1.3 EXPERIENCE – Land Application of Biosolids

The Bidder shall provide the following regarding technical qualifications and experience dealing with the biosolids land application and/or beneficial reuse projects.

A. General Experience

Provide a summary of the experience of the Bidder's Project Team working together with biosolids land application and/or beneficial reuse projects.

B. Regulatory Compliance and Permitting Experience

Provide a summary of the experience of the Bidder's Project Team working together with regulatory compliance and permitting of biosolids land application and/or beneficial reuse projects.

This summary shall include submission of its experience with meeting permit conditions and complying with air quality, noise, other environmental issues, water quality and other regulatory requirements for biosolids land application and/or other beneficial reuse projects as applicable to their Proposal.

Provide a listing of any Notices of Violation or legal actions that members of the Bidder's Project Team have received from any federal, state, or local regulatory agencies during the past five (5) years, relating to biosolids land application and/or beneficial reuse projects located within Tennessee or Alabama. If a bidder's experience does not include history in those states, then the Bidder shall provide a list of Notices of Violation or legal action in the United States. List dates, locations,

reasons for violations or legal actions, the regulatory agency involved, actions taken to resolve or correct the violations and the fine/penalty imposed, if any.

C. Project Team Members Experience

Provide a one (1) page maximum resume of each of the Bidder's Project Team including the Project Manager, onsite Technical Services Manager, Field Services Manager, and any other key technical or operations personnel for biosolids land application and/or other beneficial use projects as applicable to this bid. The Bidder's proposed Project Manager should be clearly identified.

D. Previous Experience with Similar Projects

Provide a list of at least three (3) but not more than five (5) biosolids land application projects that the Bidder has performed within the past five (5) years or that key members of the Bidder's Project Team have been involved in, providing the following information for each.

1. Name, address and phone number of the Owner.
2. Name and phone number of a representative of the Owner who is knowledgeable about the project.
3. Brief description of the services provided.
4. The duration of the contract.
5. The approximate annual value of the contract.
6. The contract completion date.
7. Experience Modification Rate (EMR).

1.4 SCOPE OF WORK

A. General and/or Management Requirements

1. The Bidder shall provide all labor, benefits, equipment, materials, fuel, utilities, insurance, performance bonds, maintenance costs, administrative and management services and other related services required with implementation of the biosolids land application project.
2. The Bidder shall provide an onsite Technical Services Manager for the duration of the contract to provide adequate documented training, technical oversight and managerial oversight of the Bidder's employees, subcontractors and agents associated with the land application of biosolids. The Technical Services Manager shall have demonstrated experience in the land application of biosolids and shall be knowledgeable in all applicable federal, state and local rules and regulations. The Technical Services Manager shall also be knowledgeable in TN

Department of Transportation rules and regulations, as well as any state in which the Bidder may transport MBWWTP biosolids.

3. The Bidder shall provide an offsite Field Services Manager who will be in charge of the day-to-day operations of the land application activities. The Field Services Manager shall have demonstrated experience and be knowledgeable in all applicable federal, state and local rules and regulations. The Field Services Manager must also flag staging area(s), setbacks, etc. before biosolids may be hauled to a land application site.
4. The Bidder shall provide an administrative office onsite or nearby offsite for the duration of the contract.
5. The Bidder shall be responsible for the training and related documentation of all of its employees including driver training, equipment operation training, safety training, land application training, public perception training, etc. Training program documentation, including training manuals and employee completion certifications, will be made available to the City upon request and maintained for a period of no less than five (5) years.
6. Prior to commencing work, the Bidder shall develop, submit to the City and maintain a written safety plan.
7. The Bidder shall be responsible for coordinating its biosolids activities with those agencies of the City, EPA, TDEC and other local regulatory agencies such as Chattanooga Hamilton County Air Pollution Control Board and the City's Water Quality Management Program.
8. The Bidder shall be responsible for promptly addressing any complaints from the public, City or regulatory agencies. The Bidder shall follow the City's public compliant reporting procedures and utilize the City's forms for such recordkeeping. The City shall be notified by the Bidder of all complaints levied against the Bidder, Bidder's Subcontractors or City during the course of managing the City's biosolids within 24 hours.
9. The Bidder shall be responsible for maintaining copies of project and employee records and documents related to the biosolids land application project on site. Such records shall be made available to the City upon request and shall be maintained for a period of no less than five (5) years.
10. The Bidder shall be responsible for ensuring that its employees comply with the City work rules and dress code when onsite which include the use of safety shoes and high-visibility clothing at all times.
11. The Bidder shall be responsible for entering the required and necessary data into the biosolids management database.
12. The Bidder shall prepare and implement a written Public Relations and Outreach Program Plan to maximize public acceptance of the biosolids land application project to minimize negative impacts on the City and to minimize any problems with neighbors surrounding the biosolids land application sites. The plan shall be

provided as part of the bid documents. Goals of the program will be to increase awareness of the product's value (both environmental and economic) to the farming community and the public. The program's objective is a minimization of complaints related to the biosolids management program.

The program shall include both research and public demonstration opportunities at a minimum, and should include the following components:

- a. Informational website (or webpage on City's website);
- b. Biosolids beneficial use brochure;
- c. Public meeting commitment;
- d. Professional organization membership;
- e. Field display plan;
- f. Compliance response and communication program.

The City shall have right to review, comment and approve the program before it is implemented.

13. The Bidder shall provide a written Contingency Plan for the City's review and approval. The Contingency Plan will address, as a minimum, the following circumstances and shall be provided to the City within 30 days:
 - a. Abnormal weather conditions that could interrupt the biosolids beneficial use operations.
 - b. Malfunction of critical items of equipment related to the biosolids beneficial use operation.
 - c. Loss of use or access to land application site(s).

B. Equipment Requirements

1. The City prefers the use of dump trucks for the transportation off-site of biosolids due to safety concerns, as well as the potential of property damage. If the Bidder chooses to utilize end-dump trucks, they will be required to submit and demonstrate a comprehensive safety plan for all sites.
2. The Bidder shall furnish equipment that is in proper working condition and that has passed all TDOT inspections. The Bidder shall be required to submit inspection paperwork that is no more than 30 days old at the onset of the contract.
3. A "spreader truck" must also be utilized to enable the land application of biosolids to smaller tracts of land. The "spreader truck" shall be operational at all times, weather permitting. The Bidder shall work to find suitable farms in which to utilize this service with a goal of spreading no less than 2,500 wet tons annually with this equipment.
4. In the event of equipment failure, the Bidder shall notify the City within 24 hours of any machinery that is foreseen to be inoperable for more than 48 consecutive hours.
5. The Bidder shall commence repairs immediately of any inoperable equipment and shall be required to bring in a suitable replacement for equipment that will be out of service for five (5) consecutive business days or more.

The Bidder shall keep in mind that equipment may have to cross state lines in order to access land application sites and shall provide equipment accordingly.

C. On-Site Handling and Staging of Biosolids

1. The Bidder shall provide all equipment necessary for handling the biosolids onsite. Trucks, front-end loaders and related equipment shall comply with all required regulations. All on-site equipment must utilize a vegetable-based product to replace hydraulic oil so as not to contaminate any biosolids material in the instance of an on-site spill.
 - a. All mufflers and noise control devices on the Bidder's vehicles and equipment must be maintained in proper working order and used at all times. The Bidder shall ensure that its operation is performed in a manner that will prevent the occurrence of objectionable noises.
 - b. All trucks and/or trailers, as well as the on-site front-end loader, shall fit under the JVAP chutes, located at the Filter Press Building. Modifications of the chutes will not be made by the City.

- c. Trucks and/or trailers shall be compatible with the conveyors located at the Centrifuge Building and loading area.
2. The Bidder shall provide an offsite maintenance facility for all of the Bidder's equipment.
3. The Bidder shall provide the City with a written safety plan and training records for all drivers assigned to this site. All employees shall abide by the MBWWTP Safety Protocols and Procedures which include, but are not limited to wearing safety shoes at all times, wearing safety glasses when and where required, wearing hearing protection when and where required and wearing high visibility safety attire at all times while on-site.
4. The Bidder shall furnish trained, qualified and properly CDL-licensed operators both onsite and as appropriate offsite for the biosolids land application project. The City shall be provided with copies of the Bidder's operators CDL license for all drivers/operators prior to working on the land application project.
5. The Bidder shall maintain the biosolids loading areas in a clean condition and shall promptly clean up any biosolids spillage that occurs during change-out of the Bidder's tractor/dump trailers and/or tandem dump trucks; loaders; and/or other equipment onsite.
6. The Bidder shall utilize the truck cleaning station following each time a truck offloads in the handling area and prior to leaving the MBWWTP fence line. Trucks and any equipment related to this project shall be kept as clean as possible at all times. All on-site equipment utilized at the MBWWTP shall be cleaned no less than weekly, including the in-plant loader.
7. Biosolids material that is tracked by Bidder onto plant roadways must be cleaned up immediately.
8. The Bidder shall be liable for any contamination of any City biosolids onsite that cause biosolids to be considered hazardous waste or cause the Class B designation of the City's biosolids to no longer be met. The Bidder shall be responsible for the proper disposal of any City biosolids contaminated by them at no cost to the City
9. Bed liner material may be used to aid in the offloading of biosolids.
 - a. Straw, hay and/or wood chips are pre-approved as a bed liner material for use with onsite and offsite hauling of centrifuge biosolids. The City will provide an area for the storage of such materials.
 - b. The Bidder shall be responsible for the cost of any bed liner materials needed to aid in the offloading of biosolids. Any such materials hauled into the plant must be weighed in and will be subtracted each month from the total quantities billed.

10. The onsite biosolids staging operations shall be on a 24/7/365 day per year basis. The Bidder shall have sufficient, adequately trained and licensed employees to cover these operational times.

D. Offsite Transportation and Handling of Biosolids

1. Once released by the laboratory supervisor, the Bidder shall load dewatered and staged biosolids at the MBWWTP site for transportation and handling directly to permitted land application site(s). Weights of loaded biosolids shall meet TDOT weight limits or other state DOT weight limits, as well as product height limits in relation to side boards.
2. The City schedules a scalehouse operator from 6 a.m. to 5 p.m. Monday through Friday and will provide coverage on weekends and holidays if hauling is required.

The City's certified scalehouse operator has the authority to:

- a. Require an overloaded truck to return to the staging area to have material removed in order to meet TDOT-approved guidelines;
- b. Require a truck to return to the truck wash area to remove any visible material that may fall onto public roadways during transportation; and
- c. Require a truck to have an inoperable tarp repaired before exiting the MBWWTP loaded with biosolids material.

If a driver does not comply with the City's certified scalehouse operator's request, no ticket will be issued and the bidder will not be compensated for the transportation or land application of the material.

3. The Bidder shall provide and maintain all equipment necessary for transportation and handling of the biosolids offsite. All trucks and related equipment shall comply with all required TDOT regulations. All trucks and equipment shall be properly labeled, licensed, tagged and permitted.
4. The Bidder shall provide transportation and handling of dewatered biosolids and/or biosolids products over public roadways in covered tractor/dump trailers and/or spreader trucks with properly sealed tailgates. The Bidder shall be responsible for controlling any leakage, spillage and/or material tracking as well as related clean-up from its trucks and trailers. Covered or tarped trucks and/or trailers shall comply with TDOT regulations. All tarp and cover mechanisms shall be mainlined in working conditions at all times.
5. The Bidder shall select transportation routes to and from the MBWWTP site to land application sites to minimize public interaction and to minimize potential spills.
6. The Bidder shall instruct drivers to go directly to the approved destination without making any unnecessary stops along the way.

7. In the event of equipment failure or malfunction of a truck transporting biosolids, the Bidder must notify the City representative immediately and make arrangements to have the truck repaired and/or towed back to the MBWWTP at the Bidder's expense. At no time is a disabled truck transporting biosolids to be left offsite overnight.
8. Any rainwater or liquids that may have accumulated inside the tractor/dump trailers, spreader trucks, and/or other equipment shall be drained and disposed of properly prior to entering a public roadway.
9. The Bidder shall provide prompt cleanup of any spills that may occur during the offsite transportation and handling of biosolids or biosolids products between the MBWWTP and the land application sites.
10. The Bidder shall develop and implement an Emergency Spill Prevention and Response Plan that outlines the emergency, accident, spill and leak notification and Procedures. The Plan shall be approved by the City prior to the commencement of biosolids hauling activities. The Emergency Spill Prevention and Response Plan's format shall generally contain the following minimum components:
 - a. Implementation Plan (responsible parties, duties and responsibilities);
 - b. Spill and Leak Prevention and Response (pre-release planning, inspection and monitoring program, preventative maintenance);
 - c. Countermeasures (contractors and equipment available for cleanup); and
 - d. Emergency Spill Control Network (notification contact list).
11. In the event of an accident, spill or leak of any kind which may involve the general public or private property, the Bidder shall immediately contact the City and shall provide a full accounting of the accident, including any injuries resulting from the accident. The Bidder shall provide the City with written reports of such accidents within two (2) working days.
12. The Bidder is responsible for any costs incurred in the cleanup of an accident, spill or leak of any kind resulting from the biosolids transportation and handling.
13. The Bidder shall provide proper disposal of any contaminated liquid or solid residues generated by the offsite transportation and handling operations.
14. The Bidder shall be liable for any contamination of any City biosolids during the offsite transportation and handling of the biosolids that cause these biosolids to be considered to hazardous wastes or cause the Class B designation of the City's biosolids to no longer be met.
15. The Bidder shall be responsible for the proper disposal of any offsite contaminated City biosolids at no additional cost to the City.

16. The offsite biosolids transportation shall normally be 8-10 hours per day; 5 days per week; Monday through Friday with occasional weekend and holiday operation. The offsite land application activity may be extended beyond the above-noted times/hours as needed. The City requests the Bidder be respectful of holidays and schedule land application activities so as not to create public complaints. The Bidder shall have sufficient, adequately trained and licensed employees to cover these operational times.
17. In the event material is determined to not meet Class B requirements, the Bidder shall transport the material to the permit-approved landfill at the request of the City. The City will pay the landfill tipping fee and provide the Bidder with a Special Waste Manifest.

E. Land Application of Biosolids

The Bidder shall provide an off-site Field Services Manager who shall be responsible for conducting the day-to-day operations of the Land Application Project. The Field Services Manager shall work with the City's representative to schedule pre-application inspections and shall flag all staging/storage areas and setbacks prior to the commencement of hauling activities.

1. The Bidder shall be responsible for identifying farms for use as biosolids land application sites.
 - a. Site locations.
 - (i) The Bidder shall select potential application sites within a 0-75 geographic mile radius of the MBWWTP site.
 - (ii) The Bidder's primary efforts will be to identify additional sites in Tennessee.
 1. Specifically, the City prefers the use of sites within the area served by the TDEC Chattanooga Environmental Field Office. That office serves the counties of Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Polk, Rhea, and Sequatchie. Searching for sites outside of this area requires City approval.
 2. Use of the Williams Island site shall be continued, which is a demonstration project in conjunction with the Tennessee River Gorge Trust.
 - b. The Bidder shall be responsible performing site surveys with City and state regulatory staff to determine if identified farm may be used for land application.
 - c. The Bidder shall not apply on any sites where biosolids or other materials from other municipalities, utilities or industries are currently being applied or have been applied in the current crop year. Approval of sites that have

previously received materials from outside entities will be on a case-by-case basis by the City representative.

- d. The Bidder shall be responsible for preparing site books for identified farms to be used for biosolids land application sites. Site books shall be developed and prepared in a format using TDEC-DWR Guidelines that meet the requirements of the TDEC-DWR Chattanooga Environmental Field Office. To-scale maps showing staging areas, field boundaries, setbacks, residences, wells, streams, ponds, other surface waters, field total acreage and field biosolids-approved acreage shall be included with the site books.
 - e. The Bidder shall submit to the City written permission from each farm owner for use of farm as a land application site before each application may commence. Permission must be obtained no more than 60 days beforehand. Bidder shall provide the farmer with adequate documented information about the biosolids land application program.
 - f. The Bidder shall be responsible for application site soil sampling, testing, laboratory analyses and reporting that meets all applicable federal, state and/or local regulations and are regularly accepted methods for these tasks.
 - g. The Bidder shall submit the site books and any required soil testing laboratory data for approval to the City in order to acquire all necessary permits and approvals from all federal, state and local regulatory agencies for all biosolids land application sites. All sites shall be permitted in the City's name. Bidder shall allow no less than 30 days' for approval of new sites.
 - h. Current City biosolids land application sites are available for the Bidder to utilize as ongoing sites, where regulatory approval and conditions are maintained.
- 2. The Bidder shall be responsible for calculating the biosolids agronomic loading rate prior to land application using the City's database for each farm field and based on the crop(s) to be grown. Soil samples from each site shall be collected and analyzed each year prior to land application by the Bidder. Copies of these calculation and lab analyses shall be provided to the City before each application. The Bidder is responsible for ensuring the appropriate agronomic rates are applied on each field.
 - 3. The Bidder shall coordinate the biosolids land application activities with the City's operating schedule for biosolids dewatering at the MBWWTP as required.
 - 4. The Bidder shall develop and submit reports and certifications as required by all applicable federal, state and/or local regulations for biosolids land application projects and sites. The Bidder shall provide a copy of all required reports to the City on a monthly or more frequent basis as required.
 - 5. The Bidder shall conduct operations of the biosolids land application projects in compliance with all applicable federal, state, and local laws, regulations, permits and approvals.

6. The Bidder shall provide loaders, biosolids application equipment and/or biosolids incorporation equipment at each application site of such capacity and condition to allow land application activities within a reasonable time period to meet the farmers' needs and requirements.
7. The City has a maximum of three (3) days onsite biosolids storage capacity. Therefore, the Bidder will need to acquire, permit and maintain suitable off-site biosolids storage areas to store biosolids. The Bidder shall develop and implement an Off-Site Biosolids Storage Plan that outlines the proposed strategy for staging and storing biosolids off-site. Additionally, the Bidder shall obtain the City's approval for each off-site storage area prior to its utilization. In the event the Bidder utilizes a permitted farm for the off-site storage area, they must also submit signed permission from the owner detailing the length of time off-site storage on his/her property will be allowed. The Off-Site Biosolids Storage Plan's format shall generally contain the following minimum components:
 - a. Proposed biosolids staging and storage approach.
 - b. Procedures for locating, acquiring, permitting and maintaining off-site biosolids storage areas in compliance with all federal, state and local regulations and guidelines.
 - c. Criteria for selection of off-site storage locations. For example, off-site storage locations should be selected to minimize public interaction (and nuisance odor complaints). Such storage areas should also provide protection from the elements (wind, rain) and allow for the capture and containment of stormwater runoff. The Bidder shall be responsible for the prompt clean up and remediation of all off-site storage areas.
 - d. Off-site storage shall be for no more than forty-five (45) contiguous days. Storage areas must be emptied at least once every 45 days. Storage for a longer period may be requested by the Bidder. The City's review and approval will be site-specific and valid for no longer than six months.
 - e. Off-site storage sites shall not be located in lower elevation areas or areas visible from highways or from neighboring residences. Well-drained areas should be utilized, and the drainage of such sites must be maintained with no ponding.
 - f. Each specific storage site must be inspected and approved by the City, and if requested, also by TDEC prior to initial use. A minimum of a two (2) week notice shall be provided to allow for inspection scheduling.
 - g. Storage areas shall be maintained such that biosolids are pushed up into stacked piles, ruts are remediated and clean-up of any tracked biosolids or mud from farm lanes is performed daily. Biosolids should not be tracked on to public roadways. In the event any biosolids are tracked onto public roadways it must be cleaned up immediately.

- h. Logs of ongoing storage inspections shall be maintained by the Bidder, and made available to the City upon request. Inspections by the Bidder are required at least once weekly and subsequent to each substantial rainfall event. Inspections shall include at a minimum the following assessments:
 - (i) Note whether run-on and runoff controls are in working order.
 - (ii) Note any slumping, erosion or movement of the biosolids.
 - (iii) Ensure there is no ponding or pooling.
 - (iv) Note whether there is excessive odor present at the site.
 - (v) Note any items requiring maintenance or repair.
 - (vi) Document the time, date, person conducting the inspection and storage location or identifier.
8. The Bidder shall provide adequate and documented training, technical oversight and managerial oversight of the Bidder's employees, subcontractors and agents associated with the land application of biosolids.
9. The Bidder shall not accept municipal or industrial wastewater biosolids, sludge or other similar materials that may be mixed with the City's biosolids or applied to application sites specifically permitted to accept the City's biosolids.
10. The Bidder shall furnish trained, qualified and properly CDL-licensed operators of the equipment provided. The City shall be provided with copies of the Bidder's operator's CDL license prior that operator working on the land application project.
11. The Bidder shall maintain the biosolids staging and/or storage areas at each application site in a clean condition and in compliance with any applicable local, state and EPA regulations and guidelines related to storage of Class B biosolids. The Bidder shall clean up any biosolids spillage that occurs during change-out of the Bidder's trucks or containers at the end of each day.
12. The Bidder shall conduct operations so as not to cause a nuisance to the public involving odors, dust, debris, mud, vectors, noise, biosolids and other sources related to the biosolids land application project.
13. The Bidder shall develop and implement an Odor Mitigation and Control Plan that outlines the policies and procedures in place to minimize nuisance odors during transportation, storage, and beneficial use. The Plan shall be approved by the City prior to the commencement of biosolids hauling activities. The Odor Mitigation and Control Plan's format shall generally contain the following minimum components:
 - a. Implementation Plan (responsible parties, duties and responsibilities);

- b. Odor Prevention and Response (planning, inspection and monitoring program, preventative maintenance);
 - c. Countermeasures (procedures and equipment available for odor mitigation); and
 - d. Nuisance Odor Compliant Policy that generally follows the City's public compliant reporting procedures and utilizes the City's forms for such recordkeeping. The City shall be notified by the Bidder of all odor complaints levied against the Bidder during the course of managing the City's biosolids within 24 hours.
14. The Bidder shall not subcontract with a farmer or another subcontractor not previously approved by the City to apply biosolids without written agreement by the City. The obligations of this Section shall be explicitly included in any Subcontracts or Agreements formed between the Bidder and any subcontractors or suppliers of goods or services to the extent that those Subcontracts or Agreements relate to fulfillment of the Bidder's obligations to the City.
15. The Bidder shall not charge any farmer or other entity for biosolids without prior written approval by the City. Any revenues derived from such fees shall be shared with the City on an equitable basis. The Bidder shall share net revenues with the City on a 50/50 split.
16. The Bidder shall be responsible for the proper removal and disposal of any material contaminated by diesel fuel, oil, hydraulic oil, antifreeze, etc. at any site by the Bidder's personnel or equipment.
17. The Bidder shall be responsible for the prompt clean up and repair of any damages to any farms or tracts caused by the land application process. This includes staging areas, as well as farm and field roads.

F. The Copperhill Project

The City has partnered with Copperhill Industries, LLC, in an effort to reclaim approximately 1,600 acres of property which was used as a copper mine. This property is located at 304 Ocoee Street, Copperhill, TN 37317. The Bidder must work hand-in-hand with the staff at Copperhill Industries in supplying them with the amount of biosolids needed to complete this project. This currently entails hauling approximately ten loads of biosolids weekly. However, as many as 10 loads per day have been hauled historically. The City anticipates this partnership will be ongoing for many years.

The Bidder is not responsible for the land application of biosolids at this site but, along with the City representative, is responsible for managerial oversight. Site visits by the Bidder must be made no less than monthly to Copperhill Industries, as well as visits around the area to ensure there are no malodorous issues that may create a public nuisance or complaint. The City representative is to be informed of the outcome of each visit within a timely manner.

G. US Dept. of the Interior/Office of Surface Mining Reclamation and Enforcement

The City is currently working with the US Department of the Interior/Office of Surface Mining Reclamation and Enforcement (OSMRE) in an effort to reclaim approximately 400+ acres of property in the Crossville, TN area. The Bidder must work hand-in-hand with OSMRE staff in supplying them the amount of biosolids needed for this project on a scheduled basis. This will entail at a minimum site visits, meetings with OSMRE and City personnel, soil sampling, creating site books and working with the City to plan the hauling, staging and land application of biosolids material. There may also be requirements for the attendance of public meetings as well as meetings with Tennessee State Regulatory Personnel. The City will work with the Bidder's Field Services Manager to coordinate site visits for a minimum of weekly inspections of the site(s) and surrounding area to ensure there are no issues that could create a public nuisance or complaint. The Bidder's land application personnel shall be onsite at all times while material is being hauled to ensure there are no issues with the tracking of material onto private or public roadways, as well as to quickly and efficiently land apply the material as it is hauled to the site. Additional acreage may be added in the future as requested by OSMRE.

1.5 CITY-SUPPLIED SERVICES

The City will provide the following as a part of the project:

- A. Approximately 80,000 (\pm 25%) wet tons/year of dewatered biosolids annually.
- B. Daily, weekly and monthly biosolids production reports.
- C. Weekly laboratory analyses on biosolids composite samples. Biosolids samples will be tested based on 40 CFR 503 requirements for Class B biosolids as required.
- D. Reasonable access to the MBWWTP for the Bidder to perform the work.
- E. Availability of an area onsite for temporary storage of Bidder's equipment, biosolids containers, trucks and/or trailers.
- F. A City contact or representative to coordinate the performance of the work.
- G. Copies of all current and necessary permits and approvals from all federal, state and local regulatory agencies. These include air quality, water quality, solid waste, NPDES, Special Waste and other regulatory permits that may be required.
- H. Reasonable access to all available plans and specifications for its solids handling equipment and facilities at MBWWTP.
- I. Training for Bidder's designated staff to use the City-licensed biosolids data management software.
- J. Training for Bidder's designated staff in the truck loading operational process.
- K. Weekly operating schedules of biosolids dewatering production.

- L. Copies of all reports submitted to regulatory agencies as required.
- M. Assistance with coordination of biosolids activities with regulators.

1.6 LENGTH OF CONTRACT

- A. In the event that changes in federal or state laws and regulations require modification of the contract, the City and Bidder agree to cooperate, as circumstances require.
- B. The length of the contract shall be for a term four (4) consecutive years.
- C. The anticipated start date of the contract shall be in April, 2022. Contractual obligations relating to biosolids management and hauling shall begin on the first day of the contract. All biosolids within the MBWWTP fence line at the beginning of the day on the contract start date are the responsibility of the Bidder.
- D. In the event the Bidder:
 - 1. Fails to initiate services on the date specified or otherwise agreed to;
 - 2. After having begun services, abandons them for any reason;
 - 3. Suspends or refuses to continue services; or
 - 4. Defaults in any manner in the performance under the terms of the Contract for a period of two (2) consecutive working days (unless the Bidder is prevented from continuing for reasons beyond its control)

The City of Chattanooga shall have the right to take over the services and complete them or have the services completed by another contractor in any reasonable manner with the additional expense borne by the Bidder.

- E. Upon termination or expiration of the contract, the Bidder is responsible for spreading all stored or staged biosolids that are no longer within the MBWWTP fence line. Failure to do so will result in liquidated damages including reimbursement of the full amount paid for the unmanaged tonnage and payment for spreading the biosolids by another vendor.

1.7 PRICE

- A. Onsite Handling/Staging 24/7/365, Loading, Site Permitting, Laboratory Testing, Hauling to Approved Land Application Site and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner within 0-50 mile radius per ton (wet ton basis).

Onsite Handling/Staging 24/7/365, Loading, Site Permitting, Laboratory Testing, Hauling to Approved Land Application Site and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed),

providing hay/straw/wood chips for bed liner within 51-75 mile radius per ton (wet ton basis).

Onsite Handling, Loading, Site Permitting, Laboratory Testing, Hauling to Permitted Site, Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner and Land Application via spreader truck per ton (wet ton basis) .

Onsite Handling, Loading, Site Permitting, Laboratory Testing, Hauling to Copperhill and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner per ton (wet ton basis).

Onsite Handling, Loading, Hauling to Approved Landfill, Disposal and Other Related Services cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner per ton (wet ton basis).

Onsite Handling/Staging, Loading, Site Permitting, Laboratory Testing, Hauling to Reclamation Site in exceedance of 75 miles and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed per ton (wet ton basis).

Meetings with Land Owners, Public Meetings, Plant Meetings, Offsite Handling/Staging, Loading, Laboratory Testing, Land Application and Other Related Services within the 0-50 mile radius per ton (wet ton basis).

Meetings with Land Owners, Public Meetings, Plant Meetings, Offsite Handling/Staging, Loading, Laboratory Testing, Land Application and Other Related Services within the 51-75 mile radius per ton (wet ton basis).

Meetings with Land Owners, Public Meetings, Plant Meetings, Offsite Handling/Staging, Loading, Laboratory Testing, Land Application and Other Related Services to reclamation site in exceedance of 75 miles (wet ton basis).

B. Price Adjustment

The Bidder shall break his/her proposed pricing into two (2) components - 1) non-fuel related component, and 2) fuel-related component.

1. Non-fuel Related Component

The Contract shall allow the Bidder to adjust the non-fuel related component price per ton annually by the method listed below:

The percentage change based on the previously published last 12 month values in the Consumer Price Index (CPI-Southeast) as published by the United States Department of Labor Bureau Labor Statistics on the anniversary date of the contract.

The adjustment in non-fuel related component price shall occur on the first day of the month of the effective anniversary date of the contract.

2. Fuel-Related Component

The Contract shall allow the Bidder to adjust the fuel-related component price per ton **quarterly** by the method listed below:

The percentage change the published fuel pricing averages of the weekly published values of the previous month found in the USDOE EIA fuel pricing for the Gulf Coast region.

The adjustment in fuel-related component price shall occur on the first day of the quarter.

C. Centrifuge Rental

Centrifuge rental may be necessary from time to time on a scheduled or emergency basis. Bidder shall provide a weekly rate for scheduled and emergency rental.

Scheduled centrifuge rental costs shall include delivery, installation (with the assistance of City personnel), initial start-up, training of City operational personnel, decommissioning of unit and return freight costs. The centrifuge unit must process a minimum of 350 gpm and must be delivered to the Moccasin Bend Wastewater Treatment Plant, 455 Moccasin Bend Road, Chattanooga, TN 37405.

Emergency centrifuge rental costs shall include delivery, installation (with the assistance of City personnel), initial start-up, training of City operational personnel, decommissioning of unit and return freight costs. The centrifuge unit must process a minimum of 350 gpm and must be delivered to the Moccasin Bend Wastewater Treatment Plant, 455 Moccasin Bend Road, Chattanooga, TN 37405 within 24 hours of request.



ATTACHMENT A

Item
<p>Onsite Handling/Staging, Loading, Site Permitting, Laboratory Testing, Hauling to Approved Land Application Site and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed within 0-50 mile radius per ton (wet ton basis).</p>
<p>Onsite Handling/Staging, Loading, Site Permitting, Laboratory Testing, Hauling to Approved Land Application Site and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed within 51-75 mile radius per ton (wet ton basis).</p>
<p>Onsite Handling, Loading, Site Permitting, Laboratory Testing, Hauling to Permitted Site, Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed and Land Application via spreader truck (wet ton basis).</p>
<p>Onsite Handling, Loading, Site Permitting, Laboratory Testing, Hauling to Copperhill and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed per ton (wet ton basis).</p>
<p>Onsite Handling, Loading, Hauling to Approved Landfill, Disposal and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed per ton (wet ton basis).</p>
<p>Onsite Handling/Staging, Loading, Site Permitting, Laboratory Testing, Hauling to Reclamation Site in exceedance of 75 miles and Other Related Services to include cleaning of onsite areas, trucks and equipment daily (more often as needed), providing hay/straw/wood chips for bed liner as needed per ton (wet ton basis).</p>
<p>Offsite Handling/Staging, Loading, Laboratory Testing, Land Application, Meetings with Land Owners, Public Meetings, Plant Meetings and Other Related Services within the 0-50 mile radius per ton (wet ton basis).</p>
<p>Offsite Handling/Staging, Loading, Laboratory Testing, Land Application, Meetings with Land Owners, Public Meetings, Plant Meetings and Other Related Services within the 51-75 mile radius per ton (wet ton basis).</p>
<p>Offsite Handling/Staging, Loading, Laboratory Testing, Land Application, Meetings with Land Owners, Public Meetings, Plant Meetings and Other Related Services relating to approved Reclamation Sites in exceedance of a 75-mile radius per ton (wet ton basis).</p>

Fuel component per ton (wet ton basis) within the 0-50 mile radius (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

Fuel component per ton (wet ton basis) within the 51-75 mile radius (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

Fuel component per ton (wet ton basis) for spreader truck usage (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

Fuel component per ton (wet ton basis) for transportation to the Copperhill Site (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

Fuel component per ton (wet ton basis) for landfill transportation (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

Fuel component per ton (wet ton basis) for transportation to Reclamation Site in exceedance of 75 miles (based on USDOE EIA fuel prices for the Gulf Coast) ¹.

¹Adjusted quarterly based on USDOE EIA fuel prices for the Gulf Coast

Scheduled Centrifuge Rental	
Emergency Centrifuge Rental	